US010970185B2

(12) **United States Patent**
De La Cropte De Chanterac et al.

(10) **Patent No.: US 10,970,185 B2**
(45) **Date of Patent: Apr. 6, 2021**

(54) **SMART ADVICE TO CHARGE NOTIFICATION**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 15 days.

(21) Appl. No.: **16/121,400**

(22) Filed: **Sep. 4, 2018**

(65) **Prior Publication Data**

US 2019/0057007 A1 Feb. 21, 2019

Related U.S. Application Data

(63) Continuation of application No. 14/871,856, filed on Sep. 30, 2015, now Pat. No. 10,083,105.
(Continued)

(51) **Int. Cl.**

G06F 1/3203	(2019.01)
G06F 11/32	(2006.01)
G06F 1/3212	(2019.01)

(52) **U.S. Cl.**
CPC ***G06F 11/327*** (2013.01); ***G06F 1/3203*** (2013.01); ***G06F 1/3212*** (2013.01); *Y02D 10/00* (2018.01)

(58) **Field of Classification Search**
CPC G06F 1/3203
(Continued)

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(57) **ABSTRACT**

Systems and methods are disclosed for advising a user when an energy storage device in a computing system needs charging. State of charge data of the energy storage device can be measured and stored at regular intervals. The historic state of charge data can be queried over a plurality of intervals and a state of charge curve generated that is representative of a user's charging habits over time. The state of charge curve can be used to generate a rate of charge histogram and an acceleration of charge histogram. These can be used to predict when a user will charge next, and whether the energy storage device will have an amount of energy below a predetermined threshold amount before the next predicted charging time. A first device can determine when a second device typically charges and whether the energy storage device in the second device will have an amount of energy below the predetermined threshold amount before the next predicted charge time for the second device. The first device can generate an advice to charge notification to the user on either, or both, devices.

24 Claims, 11 Drawing Sheets